DOCUMENT RESUME

ED 235 528 CS 504 358

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TITLE The Spiral of Silence Ten Years Later: An Examination and Evaluation.
PUB DATE May 83
NOTE 48p.; Paper presented at the Annual Meeting of the International Communication Association (Dallas, TX, May 26-30, 1983).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Evaluative/Feasibility (142) -- Information Analyses (070)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Attitudes; Communication Research; *Conformity; Group Dynamics; Influences; Interpersonal Relationship; *Majority Attitudes; *Mass Media Effects; *Models; *Opinions; Psychological Patterns; *Social Behavior; Social Isolation

ABSTRACT

In her model of opinion formation, Elizabeth Noelle-Neumann postulates a spiral of silence: to avoid isolation, people holding minority views either alter their ideas to conform to the majority's stance or remain silent, thus increasing the impression of the majority view's dominance. While providing a helpful integration of disparate ideas in public opinion formation, Noelle-Neumann's framework has been questioned at a number of points. Is it reasonable to assume that since people fear isolation, most fear being in the minority? Research suggests, in fact, that many people can oppose majority views as long as they have individual or group support and that interpersonal relationships have a greater impact on opinion formation than impersonal public opinion presented via the media. Recent studies have also offered an alternative to Noelle-Neumann's view of people as simply reacting to their perception of public opinion, suggesting that instead, people use their own opinions to form their perceptions of public attitudes. Whether people's behavior resembles the reaction or projection model may depend on a number of conditions, including their familiarity with the issue. Further research is needed on the many factors influencing opinion formation. (MM)

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# The Spiral of Silence Ten Years Later: An Examination and Evaluation

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The authors would like to acknowledge the helpful comments of Steven H. Chaffee on an earlier draft of this paper.

CS 504358

# The Spiral of Silence Ten Years Later: An Examination and Evaluation

In 1973, Elizabeth Noelle-Neumann articulated one of the few integrated expositions of mass communication effects and the process of public opinion. Her Return to the Concept of Powerful Mass Media came after two decades of research indicating that the media had but limited effects. Her work is an example of the holistic approach to communication research favored by European scholars (Blumler, 1981), involving content analysis, audience panel research and research on mass communicators. As significant as her view is for political communication and public opinion researchers, it has gone largely untested in the past decade.

In general, Noelle-Neumann has been able to demonstrate that individuals can attempt to gauge majority opinion on an issue (although accuracy of these perceptions is apparently quite low) and that some individuals appear to be influenced by their perceptions of majority opinion on some issues (although the mechanism is not without dispute). In so doing, she has been successful in clarifying and empirically testing hypotheses about a concept that has been only vaguely defined in previous public opinion literature.

But her data on the more dynamic process of the spiral of silence and, in particular, the role of the mass media in consonantly portraying one opinion and hence causing shifts in public opinion are not as compelling.

This paper begins by outlining Noelle-Neumann's conceptualization of two key concepts -- the climate of opinion and the spiral of silence. Next, her thesis is analyzed and critiqued, at both the conceptual and operational levels. Specifically, the validity of basing the "fear of isolation" concept on social psychological literature on conformity is examined. Next, the role of primary group ties, through which an individual can maintain a minority opinion, is offered as a crucial variable that has not yet been examined.

Alternative explanations to the spiral of silence concept -- in

particular, projection and the bandwagon effect -- are shown to explain several of Noelle-Neumann's findings. Finally, this analysis examines the role of the media in conveying majority opinion and examines Noelle-Neumann's data from her works published in English.

## The Spiral of Silence

Most people, Noelle-Neumann claims, live in perpetual fear of isolating themselves. Drawing particularly on the work of Asch (1965) and Milgram (1961), she observes that not isolating oneself is, in fact, more important than one's judgment (1974,p 43).

She asserts that individuals are constantly sensitive to the climate of opinion and assess the distribution and strength of opinions for and against their own. If they find their view to be dominant or on the rise, tney will be willing to express their view publicly. If they sense that their view is in the minority or on the decline, they will be silent. Because one group expresses itself confidently and another is silent, fearing the sanctions associated with minority opinion, people in society are confronted more and more often by one viewpoint, which more and more appears to dominate. "The tendency of the one to speak up and the other to be silent starts off a spiraling process which increasingly establishes one opinion as the prevailing one" (1974,p 44). Implicit in this process is the assumption that for a viewpoint to influence assessments of the distribution of opinion, it must be expressed (1973,p 91).

Professor Noelle-Neumann's definition of public opinion is best expressed as "the dominating opinion which compels compliance of attitude and behavior in that it threatens the dissenting individual with isolation, the politician with loss of popular support" (1974,p 44). This notion is based largely on the work of the German sociologist Tonnies who wrote, "Public Opinion always claims to be authoritative. It demands consent or at least

compels silence, or abstention from contradiction" (Noelle-Neumann, 1974,p 44). From this viewpoint of public opinion, "social-conventions, customs and norms have always been included in the domain of public opinion. Public opinion imposes sanctions on individuals who offend against convention--a process of 'social control'" (1973,p 88).

There are a few individuals, "hardcores," who are willing to express their opinions without feeling compelled to conform. They will not be silent in the face of public opinion. But for most individuals, public opinion "demands consent or at least compels silence."

How do individuals know which opinions are acceptable to express in public so individuals will not be isolated? Noelle-Neumann claims that by the use of a "quasi-statistical organ," the individual assesses the opinion environment. Specifically, the individual uses the content of the mass media and original observation to determine the climate of opinion. The media play an important role through agenda-setting, according certain persons and arguments special prestige, and relating the urgency or chances of success for various opinions (1974,p 51).

Despite much of the research in the 1940's, 50's and 60's regarding the minimal effects of the media, Noelle-Neumann claimed in the early 70's that the media have powerful effects, particularly over opinion formation. Much of the research on media effects, she argues, has been deficient because it has been conducted under laboratory conditions, not in the field. Because of this, three concepts--ubiquity, cumulation and consonance--have not adequately been taken into account by mass communication researchers.

The mass media are ubiquitous, she argues, and rarely can an individual escape the accumulation of the same media messages. Media messages are consonant because most journalists share the same values, commonly depend on the same sources, reciprocally influence one another, and are similar

demographically (1973).

What are the implications of this consonance? To Noelle-Neumann, consonance limits the public's ability to form independent opinions (although it is unclear how "independent" any opinion can be said to be). Further, consonance impedes the process of selective perception, a mechanism that she claims is used by an individual to keep his opinion from being influenced. Thus, the media are a powerful influence in an individual's opinion formation, and the more a medium makes selective perception difficult, the more powerful that medium is (1973).

Actually, many of the ideas that Noelle-Neumann incorporates into this view of mass communication and public opinion are not new. Her real contribution has been to combine disparate elements into a unified model which can be tested empirically.

Elements of Noelle-Neumann's ideas can be found in several scholarly works. Floyd Allport (1937) has described the climate of opinion by noting the pressure that can be brought to bear on householders in a neighborhood to shovel the snow from the sidewalk.

John Locke (1961:297) describes Noelle-Neumann's "hardcores" when he says: "Nor is there one of ten thousand who is stiff and insensible enough to bear up under the constant dislike and condemnation of his own club."

In The People's Choice, Lazarsfeld, Berelson and Gaudet (1944) foreshadow Noelle-Neumann's thoughts on the pressure that can be exerted on "hardcores" when media messages are consonant:

> European experience with totalitarian control of communications suggests that under some conditions the opposition may be whittled down until only the firmly convinced die-hards remain. In many parts of this country, there are probably relatively few people who would tenaciously maintain their political views in the face of a continuous flow of hostile arguments (p 87).

This description of the public opinion process by W. Phillips Davison

(1975) roughly describes the process of conformity-induced silence that occurs when an individual feels he is in the midst of a hostile majority:

> Once expectations about the attitudes and behavior of others on a given issue have been formed, these expectations tend to influence the opinions and behavior, and even the attitudes, of the people who entertain them. They know that expressions in favor of an issue are likely to win respect or affection for them in one group and may provoke hostile reactions or indifference in other groups. Therefore, they are likely to speak or act in one way if they anticipate approbation and to remain silent or act in another way if they anticipate hostility or indifference....People who do not share the opinions as expressed by the crowd's leaders are likely to remain silent, fearing the disapproval of those around them. This very silence isolates others who may be opposed, since they conclude that, with the exception of themselves, all those present share the same attitude (p 112-113).

Thus, the concepts of the opinion climate and the spiral of silence are not new, but have existed piecemeal in the scholarly literature. Noelle-Neumann has been able both to articulate a thesis based on these concepts and generate data to support some of her contentions.

## I. Fear of Isolation and Conformity

Since pressure to conform is a major portion of Noelle-Neumann's foundation for her arguments, it is worthwhile reviewing literature on conformity, particularly the work of Solomon Asch (1965).

In his now-classic study, Asch put one subject in the midst of seven confederates and asked each person to determine the shortest of three lines. The shortest line was clearly distinguishable; it was an unambiguous situation. Asch had the seven confederates purposively select an incorrect line, and then examined the subject's response in light of the clearly wrong responses of the confederates.

Asch found that one-fourth of the subjects were completely independent of any majority pressure. These people, who Noelle-Neumann would label "hardcores," selected the correct line despite pressure to conform and select the incorrect line. On the other side, no subjects conformed on every trial

(see Table 1).

In other words, the situation did not elicit total conformity from subjects, a finding that surprises some people. One social psychologist (Sherif, 1976) finds that most students overestimate the degree of conformity that Asch found, and attributes this to the belief that social influence will always be great regardless of the circumstances. But as Asch found in manipulating some independent variables, pressure to conform is highly situation specific. Further, there is no single "type" of individual who conforms, nor does public conformity imply inner acceptance of the judgment or opinion.

In analyzing different groups of subjects, Asch found that although "very few" yielded nearly completely to majority influence, they didn't think they had yielded at all. These people perceived the majority estimates as correct and didn't feel as though they themselves had conformed. Most of the subjects who conformed, however, lacked confidence in their estimates and felt a tendency to go along with the majority when in doubt. Still others who conformed knew they were right, but did not want to appear different from the majority. These people did not conform internally; they retained their belief based on what they observed. But publicly, they conformed.

In follow-up experiments, Asch found that if the subject had some support from someone in the group, conformity to majority influence declined substantially. In a replication of Asch's experiment, researchers Pollis and Cammaller (1968) found that a woman and her "best friend" practically ignored, and were not influenced by, the wrong choices by the majority. That is, support for one's position--even if the support comes from only one other person--apparently makes an individual confident enough to express his or her own opinion despite overwhelming opposition from the majority.

Noelle-Neumann has based her spiral of silence notion on face-to-face,

small group situations described by Locke (1961), Allport (1937) and Asch (1951). In each case, the individual is isolated amidst a hostile majority and in direct contact with his antagonists.

Yet it is quite a conceptual leap to argue that because an individual fears isolation, he will avoid expressing minority opinion, where that minority opinion might be shared by literally hundreds of thousands individuals and, more importantly, by members of important primary groups. It is a conceptual leap because social psychological studies have shown that any support -- even one person -- makes an individual confident enough to express an opinion against a hostile majority. And since the "public" in public opinion (where "public" is a noun and not an adjective as Noelle-Neumann uses it) usually refers to an organized group of individuals with a common interest, an individual is likely to have support from like-minded friends and associates.

Noelle-Neumann's argument seems to be largely a mass society argument (Blumer, 1969; Kornhauser, 1959). That is, the media are seen as exerting a powerful influence over atomized individuals. To Noelle-Neumann, other individuals are relevent only in the sense that they impose negative sanctions on the holder of minority opinion. But she ignores the role of these other individuals, particularly members of reference groups, in supporting the holder of minority opinion. Opinions are not formed nor do they exist in a social vacuum. In "rediscovering the group," Katz and Lazarsfeld (1955) note that communication studies had, to that point, grossly underestimated the extent to which an individual's opinions and attitudes were anchored in interpersonal relationships. Influence attempts by the mass media, the authors argued, might or might not be successful depending on whether the message was consistent or inconsistent with an individual's reference group norms. The individual's relationship with important groups will be discussed in greater detail later, but it suffices to say that

Noelle-Neumann's argument fails to account for the power of groups to maintain and change an individual's opinion and to mediate the effects of mass communication.

Public vs. Private situations

In a replication of Asch's work, Crutchfield (1955) found that when subjects are isolated but supplied the choices of confederates, conformity is less likely to occur than when subjects are face-to-face with group members. This finding was also replicated by Argyle (1957). In other words, pressure to conform declines as scrutiny by the group declines. In a voting booth, therefore, one would not expect conforming pressure to affect an individual's choice, because he is in private and his actions are not subject to the majority group's eye.

Kelman (1961) makes this point in describing various processes of opinion change. "Compliance" is one means of opinion change he describes in which an individual feels compelled to conform to group norms to be accepted by the group. Yet compliance is more likely to induce conforming public behavior but not internalized acceptance of that opinion or attitude. Only when the individual is under scrutiny by the group will he feel the need to conform. This description is similar to that of Asch when describing those subjects who publicly conformed but who also retained their own opinion.

Noelle-Neumann would argue that public conformity would serve the same function as private conformity; that is, if everyone publicly conforms, then individuals will perceive the dominant opinion as being much stronger than it actually is and will conform to it or abandon their efforts to promote their minority opinion. But this does not necessarily follow; one can imagine a case in which individuals retain strong inner convictions while hiding them publicly.

Other Factors in Conformity

Personality characteristics are also related to the extent to which an individual conforms. According to Crutchfield (1955), conforming individuals are generally less intelligent, show less leadership ability, have greater feelings of inferiority, hold more authoritarian values, prefer strict child-rearing practices, and idealize their parents than were non-conforming individuals.

Hardy (1957) also found that individuals who have a high need of affiliation are likely to conform and change their attitudes when put in an antagonistic group situation and given no support. Those least affected by group pressures were those low on the affiliation-need scale.

The type of influence also affects the extent of conforming behavior (Deutsch and Gerard, 1955). They define normative social influence as influence to conform with the positive expectations of others, and informational influence as influence to accept information as evidence about reality. Normative social influence is reduced when an individual feels no pressure to conform--that his judgment cannot be identified. However, the more uncertain an individual is about the correctness of his judgment, the more susceptible he is to either normative or informational influence.

Finally, several studies have found that cultural factors affect conformity, e.g., that French tend to conform less than Norwegians (Milgram, 1961); that Rhodesians tend to conform more than Brazilians, Arabs or Chinese (Whittaker and Meade, 1967), etc. But as a good theory should be able to cross international boundaries, these studies are considered less important when examining the spiral of silence.

## II. Scanning the Environment

Because the individual fears isolation, Noelle-Neumann's thesis goes, he constantly surveys his opinion environment to determine which opinions are on

the upswing and which ones are on the decline. How does he do this? By use of a "quasi-statistical organ": through personal observation and contact with the mass media.

Personal Observation

Individuals perceive and conform to opinions of various primary and secondary groups of which they are members. These various groups exert differing amounts of influence over the individual according to how attractive they are or how much the individual desires to remain a member in them (Newcomb, 1958). The more the individual values his attachment to these groups, the more likely he will be to accept or adopt the group's opinions. Gallup and Rae (1940) note that "the urge to follow the majority ... must be interpreted to mean not the opinion of the nation as a whole, but rather the small intimate group who make up the individual voter's circumscribed universe.

Yet, as previously stated, Noelle-Neumann has ignored the role of these small reference groups, and instead, has maintained that individuals perceive and are subject to the dominant "public" opinion, although it is unclear what this "public" represents or is composed of. Most likely, it is argued here, what individuals perceive as the dominant opinion in their opinion environment is the dominant opinion of important reference groups. They are familiar with the dominant opinions of these groups, whereas they might be unfamiliar with and uncaring about the dominant opinions of some amorphous public.

In a review of studies concerning communication and group membership, Katz and Lazarsfeld (1955) repeatedly present evidence for their contention that interpersonal ties anchor individuals' opinions.

They cite a study of Allied propaganda to German troops in World War II by Shils and Janowitz (1948) which showed that individuals will reject

communication that seeks to separate them from their group. And the more integrated individuals are in their group, the more likely they will be to reject antagonistic material.

Another study cited, that of Kelly and Volkert (1952), indicates that attempts to change an individual's attitude will not succeed if that attitude is shared with others to whom the individual is attached.

But more fundamental than resistance to persuasion, an individual's "social reality" is structured largely by an individual's association with others. If members of an individual's group recognize and reinforce certain opinions and beliefs, then the individual will likely subscribe to the same opinions and beliefs (Festinger, Schachter & Back, 1950).

Thus, groups play an important role in opinion formation and then maintenance of that opinion. While Noelle-Neumann argues that the media play a powerful role over opinion formation, groups mediate that effect by anchoring opinions through social ties and even affecting media use patterns in the first place.

For example, Suchman (1941) found that an individual seeking acceptance in a new group may adopt media habits of that group, in this case, listening to "serious music."

In a study of media use by teenagers, Peter Clarke (1973) found that individuals tended to select media that would afford the greatest social utility in their group. In other words, their media selection was a function of both their interests and, more importantly, perceptions of their reference group's interests. As in the Asch studies, some individuals tended to listen to the music they preferred, thus isolating themselves from social support.

Supporting these findings, Johnstone (1974) also observes that audience members may select their content under a good deal of pressure and guidance from their environment. The uses and gratifications approach which has been popular in the past decade of mass communication research is based upon the

notion that an individual seeks to gratify needs which spring from internal and social origins (Blumler and Katz, 1974).

Given these findings, there is a basis for considering an alternative to Noelle-Neumann's thesis. In her model, the consonant media have a powerful influence over audience members. But, if the audience is viewed as active and operating under group pressure to select certain content from the media in the first place, then the perceptions of dominant opinion that individuals select from the media may be those that are in accord with those of the reference group. Selectively perceiving these opinions in the media will reinforce the perceived dominance of these opinions.

Lazarsfeld, Berelson and Gaudet (1944) found that in the course of a political campaign, the majority of voters who changed at all changed in the direction of the prevailing vote in their social groups. It was the dominant opinions of close, intimate groups, not some amorphous public, which brought these "deviates" back into line.

In offering an explanation for the power of the group, Lazarsfeld, and his colleagues noted that yielding to personal influence brings an immediate and personal reward; the neighbor is right there to praise or punish directly. Yielding to a radio broadcast or newspaper editorial, on the other hand, gives only anonymous praise or punishment; the sanctions are not as compelling.

One note should be made here on the use of election data to describe public opinion phenomena. Most pollsters study elections, which are formalized situations in which an individual (1) is confronted with a concrete closed-ended choice and (2) acts in the privacy of a voting booth. And pollsters typically are fairly accurate in assessing voting intention because they simulate the very concrete action that an individual will undertake in a voting booth. But pollsters usually use the same techniques

to study public opinion, a situation in which an individual (1) is confronted with a myriad of open-ended choices of action and (2) acts publicly in conjunction with other members of an interest group. Conceptually, elections and public opinion phenomena are very different, yet they are usually operationalized as if they were the same concept. Particularly when dealing with Noelle-Neumann's conceptualization of public opinion, where an individual's actions are scrutinized by others, data on voting (e.g., Noelle-Neumann, 1977; Lazarsfeld, Berelson and Gaudet, 1944; Glynn and McLeod, 1982a), a private act, are not entirely appropriate.

Group Attraction

Throughout the literature on groups, there is the theme that attraction to a group will result in an individual adopting opinions or norms of that group. This is, perhaps, another alternative to Noelle-Neumann's strong belief that public opinion "demands" conformity. Perhaps it is the positive attraction to, not threat of negative sanctions of, groups that have the greatest impact on opinion formation and change.

Kelman (1961) talked about this means of attitude formation and change as "identification" and claimed that it was a more effective method of altering private attitudes than was compliance. Also in line with this mode of thinking would be Newcomb's (1953) symmetry theory which is based on the principle of attraction rather than conformity.

In Newcomb's model, it is the assumption that person A's orientation to issue X is dependent upon A's orientation to another person or group B. Newcomb stresses attraction in his model, and reports that "in one study, those members least influenced by reported information concerning their own group norms were those most attracted to groups whose norms were perceived as highly divergent from those of the group in question" (p 299). Individuals may or may not feel constrained by norms of only one group, but may in fact

be subject to norms of several groups (Stouffer, 1949).

McLeod and Chaffee (1973) offer another approach to the study of interpersonal perception, derived from Newcomb's A-B-X model. Their model is based on the assumption that a person's behavior is not simply the product of his private cognitive construction of the world; it is also a function of his perception of the orientations held by others around him and of his orientation to them with regard for the same world. Their concept of accuracy is a measure of the match between a person's perception of another's opinion and that person's actual opinion. Significantly, accuracy has been found to be positively related to incidence of communication. That is, the more a person communicates with others in his environment, the more likely he is to accurately describe those others' opinions (Wackman, 1973).

Applying this to the spiral of silence, Noelle-Neumann claims that individuals are constantly scanning their environment to determine dominant opinion. Accuracy in perceiving this dominant opinion is a function of frequency of communication. Thus, a person will likely be accurate in assessing dominant opinion in one of his groups with which he has frequent contact, but may be inaccurate in assessing dominant opinion of some amorphous public with which he has little contact.

Projection vs. Conformity

How accurate is a person in assessing the attitudes of others? According to McLeod and Chaffee (1973), "our perceptions of other people's cognitions are seldom accurate beyond chance, or beyond the level of accuracy that would be obtained had A simply projected his views onto B" (p 482).

The term "pluralistic ignorance" has been used in describing the poor match between individuals' perceptions of the opinion of some public and that public's actual opinion. One study involving this concept (Fields & Schuman, 1976) also alluded to the projection effect mentioned above, the process in

which A simply projects his opinion onto B:

> The dominant pattern (in the process underlying public beliefs about others' attitudes) is the "looking-glass perception--the belief that others think the same as oneself. In the absence of strong counter-forces, a large proportion of people feel that the world they live in agrees with their own opinions on public issues (p 445).

Projection effects are well-documented (Mendelsohn & Crespi, 1970). Berelson, Lazarsfeld and McPhee (1954) in the classic work Voting examined individuals' perceptions of how certain groups would vote. They found that the closer those individuals were to the groups, the more likely they were to see the group voting their own way. They attributed this finding to one of two causes: first, that an individual feels that people like himself tend to think like and have the same opinions as he does--he projects his voting intention onto others like himself; or secondly, that people are more likely to associate with people like themselves and assume that all persons in the group think as they do.

The possibility of projection effects raise the possibility of another alternative to the spiral of silence. Noelle-Neumann maintains that individuals scan their environment, estimate majority opinion, then change their opinion to coincide with the dominant opinion or remain silent. The projection argument would say that individuals often believe that others think as they do, so there is either no need to scan the environment or if they do scan their environment, they selectively find evidence to support their belief that others think as they do.

Consider for a moment the data in Table 2 from Noelle-Neumann (1973). From this data, it is possible that an alternative explanation of projection effects is at work. That is, supporters of GDR recognition tend to think that most people support GDR recognition, while opponents similarly project their opinion onto most people. Noelle-Neumann, on the other hand, might

argue that individuals sense the climate of opinion and accordingly give their opinion; this is the opposite direction of causality.

Further, it is interesting to note that although about fifty percent (n=847) of the respondents support GDR recognition and about fifty percent (n=884) do not, a relative majority of both sides have overestimated the support for their opinion in thinking that their opinion is the dominant opinion. Only a relatively few (22% and 19%) have correctly sensed that the actual distribution of opinion is "about fifty-fifty."

This is contrary to what Noelle-Neumann would expect. According to her thesis, only the holders of the majority opinion would overestimate support for their opinion, while supporters of the minority faction would underestimate their support. But clearly, some account must be made for the initial distribution of opinion. Where the initial distribution is highly skewed, the probability that only one faction would overestimate support for its position should be higher than in the case where the initial opinion distribution is roughly 50-50. This is a variable that needs to be experimentally manipulated.

The next table (Table 3), one taken from her (1977) work, also illustrates the possibility that the projection effect can be an alternative explanation for her findings.

In this table, Noelle-Neumann presents evidence that the proportion of persons who "think most people like Christian Democrats" rises and falls correspondingly with the proportion of persons who say they "plan to vote for Christian Democrats." She argues that changes in perceptions of how most people feel about Christian Democrats influences individuals' voting intentions for or against Christian Democrats. Yet, it seems equally plausible that changes in individuals' voting intentions alter their perceptions of what most people think about Christian Democrats. Without clear temporal priority, the direction of causality is indeterminant.

Further, she offers no individual level data that those persons who are changing their voting intentions are actually those persons who are being influenced by their perceptions of changes in the climate of opinion. The data are aggregated, so it is conceivable that those who change their voting intentions are not the ones who have altered their perceptions of the opinion climate, or vice versa. In addition, correlation does not imply causation. In this case, while both individual intentions and perceptions of majority intentions are highly correlated, it is not possible to validly infer that one "caused" the other. For example, it is conceivable that recent policy decisions by the Christian Democrats, some of which were successful, others not, have led individuals to change their own voting intentions as well as their perceptions of most people's intentions. Here, an extraneous variable could be responsible for the concomitant variation in individual and perceptions of majority intentions.

Expectation and Voting Intention

In The People's Choice, Lazarsfeld and his colleagues found a high correlation between expectation of a candidate to win and voting intention for that candidate. But, the authors were uncertain as to the order of causality. Did expectation to win result in voting intention (which they called a bandwagon effect), or did voting intention result in expectation as to who would win (which they labeled projection effect)?

Similarly, in Voting, Berelson et al., also found that voting intention was highly correlated with expectation as to who would win, but again could not determine whether bandwagon or projection effects were the dominant mechanism.

Patterson (1980) offer further evidence of the relationship between expectations and voting intentions. In the 1976 Democratic primaries, if Democrats regarded a candidate as having a good chance, they usually had

acquired a more favorable attitude toward him by the time of the next interview. Yet this was not the case in the Republican primary. Here, people were optimistic about the prospects of the candidate they favored, and probably thought that others would develop equally high opinions of their favorite candidate. In the first instance, expectations as to which candidate would win led to a more favorable evaluation of the candidate on subsequent interviews (which could be the result of either a bandwagon argument or Noelle-Neumann's conformity argument), whereas in the second instance, projection effects seemed to be at work.

Finally, Glynn and McLeod (1982a) in a replication of Noelle-Neumann's work found that expectations as to who would win the 1976 Presidential election was a significant factor in predicting vote preferences. But, they could not determine the causal ordering.

What we have, then, is evidence that expectations of how a candidate will do is highly correlated to an individual's voting intention. But, the reasons for this are unclear and may vary by situation. To Noelle-Neumann, individuals perceive that one candidate has support of the majority or is gaining ground, so they must conform and vote for that candidate or remain silent. A bandwagon theory is related, but subtly different. Here, it would be argued that individuals perceive a candidate as in the lead or gaining ground and vote for that person to back a winner. The difference between Noelle-Neumann's thesis and the bandwagon idea is that the first argues that individuals will back the winner to avoid negative sanctions associated with being on the losing side, whereas the second argues that individuals simply want to back the winner, not necessarily to avoid negative sanctions. Finally, the projection argument says that an individual assumes that others think as he does, so his voting intention leads to his expectations about who will win. In Noelle-Neumann's and the bandwagon explanation, expectations

cause voting intention; in the projection argument, voting intention causes expectations.

The Impact of Public Opinion Poll Results

One final mechanism for determining the climate of opinion is through the reading of public opinion poll results. Noelle-Neumann criticizes the belief that publication of poll results triggers changes in the climate of opinion:

> The error almost obtrudes itself; it results from the latent willingness to ascribe a strong influence to the mere publication of opinion research findings. But this is not how things really are; this is not the explanation....The intrinsically noteworthy fact is that people sense a climate of opinion with public opinion research, that they virtually have an "opinion organ" capable of registering the most minute changes (1979, pp 147-148).

Yet, "polls provide information on a vast reference public" for individuals (Atkin, 1979,p 516). They have been found to affect individuals' opinions. What is most likely is that polls are a sufficient but not necessary mechanism through which individuals can perceive the opinion climate.

Most research on the effects of poll results have concentrated on bandwagon or underdog effects. In the former, the individual is motivated to be on the winning side, in effect, to join the majority. In the latter, the individual is motivated to vote or work for the issue or candidate who is lagging behind in the polls. Using Noelle-Neumann's approach, one might expect bandwagon effects, since individuals would then be guaranteed of not being isolated. Underdog effects, on the other hand, would be unlikely, as the fear of isolation would be greatly increased. But, Noelle-Neumann does not endorse either effect, as she does not believe that publication of poll results has an impact on individuals' opinions.

Evidence about bandwagon and underdog effects is mixed. Most of the

research has again focused on voting situations rather than public opinion situations, and some of this voting research has focused on the question of whether election-day broadcasts produce bandwagon or underdog effects (e.g., Fuchs, 1966; Mendelsohn, 1966). But the general conclusion is that these results come too late in the vote-decision process to influence people greatly. Of much greater interest are studies which examine the effects of poll results over time.

For example, Wheeler and Jordan (1929) distributed several waves of questionnaires to students in which the previous wave's results were included with the questions. They found that reports of the group opinion significantly encouraged agreeing opinions and inhibited disagreeing opinions. In other words, seeing the distribution of opinions of their group had an effect on individuals' subsequent opinions.

In examining changes in voting intentions, Lazarsfeld et al., (1948) found that a number of respondents specifically mentioned public opinion polls as providing a change in expectations as to who would win the election. This finding is particularly important because it occured in the field where respondents chose to read poll findings rather than in a controlled experiment in which subjects might be forced to read poll results.

Navasio (1977) found evidence of both bandwagon and underdog effects in his study of poll effects. In his study, blue-collar workers in the experimental condition--those who received poll results unfavorable to Nixon--were more favorably disposed toward Nixon but responded at a lower rate in the survey than did control-group blue-collar workers. White-collar workers in the experimental condition were more critical of Nixon and responded at a higher rate than did the control group white-collar workers. This finding would seem to both support and fail to support Noelle-Neumann's thesis. Blue collar workers who were more favorable to Nixon also responded at a lower rate, which can be interpreted as remaining silent due to the fear

of being isolated for holding minority opinion. Yet these respondents did express preferences for the underdog thus risking isolation. While collar workers who were unfavorably disposed toward Nixon responded at a higher rate than did white collar control group subjects, and this might represent a bandwagon effect.

Ceci and Kain (1982) also found evidence of an underdog effect in their research. Prior to marking ballots in a trial election, subjects were informed of the results of a recent public opinion poll. Later during the week, they were contacted by a "professional pollster" and given the latest public opinion poll results, then asked for their opinion. Subjects who received inconsistent information in the two sets of poll data, i.e., that one candidate is ahead and a few days later that the other candidate is ahead, shifted the opposite way of the trend indicated by the polls. Subjects tended to react unfavorably to the candidate who seemed to be jumping into the lead. This finding would also not be adequately explained by the spiral of silence, as individuals were found to shift in the opposite direction as that indicated by the climate of opinion.

On the other side of the research question, Klapper (1964), in a review of the literature, found no evidence that knowledge of public opinion results affected individuals' voting behavior. He found no evidence for either bandwagon or underdog effects.

Finally, there is one study that deserves closer examination, that of Charles Atkin (1969) on the impact of poll results on voters' preferences. He observes that individuals have expectations about how an issue or candidate will fare. New information the individual receives might have contrasting effects on those anticipating a substantially higher or lower popularity level, and very little influence on voters expecting that level of support. Noting the importance of group opinion, Atkin observes that if an

issue position is supported by a relative majority of a positive and relevant reference public, then the individual will likely undergo a favorable change in his voting intention or his image of the issue or candidate.

Atkin offered three possible explanations for this process. First, he acknowledged that people generally feel a desire to fit in and seek social approval (a conformity argument that Noelle-Neumann would likely endorse). Or, he argued, they might just want to vote for the winner (bandwagon). But, he felt that neither of these arguments was as compelling as his third explanation, namely one provided by balance theory. According to this, new information about support for an issue or candidate by a relevant reference public might cause individuals to alter voting intention or change their image of the issue or candidate to restore cognitive balance. The reference group is again seen as having an important influence on the individual's opinion.

## III. The Role of the Media

Noelle-Neumann argues that the media tend to be consonant, thus limiting the use of selective perception of individuals in defending their opinions. But clearly, the American mass media are not entirely consonant. The underlying pluralism which characterizes the American political system is reflected in pluralistic mass media. Kornhauser (1959) makes this point in saying that in a pluralistic society, there are competing groups with many channels of communication and power; in a totalitarian society, on the other hand, there are fewer independent social formations and, consequently, fewer communication channels. Researchers have found that communities with greater cultural, social and political diversity tend to have greater diversity in media outlets and content (Olien, Donohue and Tichenor, 1978; DuBick, 1978).

"The media" are not a monolith but include an "underground press" as well as political media of the far right (McCombs, 1972); specialized press,

prestige press and popular press (Paletz and Entman, 1981). While television news tends to be homogeneous across the three major networks, magazines are much more specialized and cater to diverse political views.

The media are useful, Noelle-Neumann argues, as a source used by individuals to test the climate of opinion. How do the media communicate opinions that are dominant or on the rise? To some, the media are thought to convey majority opinion through editorial pages, through the way news events are selected and angled (Elliott, 1974). But, it is unclear whether editorials are seen by readers as reflecting majority opinion or the idiosyncratic belief of the editor or publisher.

According to Tichenor and Wackman (1973), it is unikely that the media fulfill this role very often. In their study, they asked respondents to estimate majority opinion on a particular issue. Sixty-six percent said they did not know what the majority opinion was in the community. The best predictor of attempting to predict majority opinion was interpersonal communication, not media use.

It is too simplistic to consider the media to be a monolith and uniformly consonant. Similarly, audiences are not monolithic; individuals in society use the media differently. Paletz and Entman (1981) argue that 10-15% of the population are attentive to and knowledgeable about political issues, and these individuals are more likely to rely on the specialized or prestige media. Other segments, which tend to be less politically inclined, make different use of different types of media.

The question of how well the media portray majority opinion can, in part, be answered by turning again to Noelle-Neumann's data. If the media are as consonant as is claimed, then individuals should be able to sense whether they are in the majority or the minority on an issue. Yet, as Table 4 indicates, a table extracted from her 1973 article, majority opinion is not at all clear to respondents.

In this table, one can see that 271 respondents who have adopted the majority opinion stance actually believe they have adopted the minority position. And even though they feel they are in the minority, they are still willing to speak out and contradict their fellow passenger, clearly contradicting the notion of a spiral of silence notion. Further, 198 respondents who have adopted the minority stance actually feel they represent the majority position. Only 47 persons who have adopted the minority position actually feel they represent minority opinion, and these people, consistent with the spiral of silence thesis, are more likely to remain silent and refrain from contradicting the other passenger (45%). But even here, a relative majority (53% vs 45%) of those who perceive themselves as being in the minority would "speak out", again contradicting the idea of a spiral of silence. But the most striking feature about this table is the confusion of respondents over what the majority opinion actually is. Clearly, either the media cannot be as consonant in their presentation of majority opinion as Noelle-Neumann claims, or individuals are simply poor judges of majority opinion. If the latter is the case, then it seems as though the role of the media in creating the climate of opinion is less important if individuals are going to misperceive it anyway.

Data of this type are most crucial in a proper analysis of the spiral of silence, yet this table is the only of its kind. It is an individual's perception of what constitutes majority opinion which is important rather than the actual distribution of opinion as reported by a public opinion poll. Only by comparing an individual's opinion with that of his/her perception of majority opinion can any meaningful conclusions be drawn. It is not possible to infer that an individual is responding to majority influence without knowing whether the individual thinks he or she is in the majority or minority.

Noelle-Neumann's data on the role of the media, while crucial to her theory, are also not strong. For example, she twice cites a study (1973, pp 84-85; 1982, pp 142-143) comparing trends in public opinion with media content. She uses a twenty-year period of poll data (with five time points) which shows that favorable replies to a question of Germans' "best qualities" drops from 96% in 1952 to 80% in 1972. But she uses a three-month period, February 1 to April 24, 1968, for a content analysis to determine the media's portrayal of Germanic qualities. She finds, on the basis of 39 television and 82 newspaper references to the German character, that a preponderance are negative, and concludes on the basis of this three-month sample that the media have caused this twenty-year decline in German pride. In the first article, she adds the caveat that the content analysis is too narrow a basis for strong conclusions, even though the heading of the section is "Content analysis and trend observation of public opinion polls are combined to assess long term effects of consonance in mass media" (p 83). But in the later article, she says that "There is only weak empirical support of the hypothesis that the constant decrease of national self-esteem in the fifties and sixties could be explained to be an effect of mass media influences" (p 143). But in fact, the content analysis does not permit any legitimate conclusions. One obvious alternative is that the media in 1968 are reflecting this decline in German pride rather than causing it. Another is that the content analysis reflects the editorial policy for that brief period of time and that the editorial policy may have been different under different editors. Any conclusion is unwarranted without further analysis.

In describing the role of the mass media in changing opinions about capital punishment, Noelle-Neumann (1973) shows that opposition to capital punishment has increased markedly from 1950 to 1972. She observes that "We may assume that a consonant attitude of the mass media, which are generally opposed to capital punishment, could be the reason" for this increase in

opposition (p 96). Again, such a statement is totally unwarranted. First, she offers no evidence that the German media have been consonant in their presentation of this issue. Secondly, she offers no evidence that the German media have taken that editorial position. It is pure conjecture without evidence.

Further, Noelle-Neumann (1982) cites data which show that media content is not in tune with majority opinion and that majority opinion eventually shifts closer to the opinion expressed in the media. She uses this to conclude that the media are agents of social change; if the media were agents of social control, she argues, media content would reflect majority opinion. In fact she goes as far as saying:

> Have the media come closer to the attitude of the population or has the attitude of the population come closer to the consonant general mood of the media? The results--and this is rare in communication research--are unequivocal; media content and journalists' attitudes were always ahead of the changes in the attitudes of the population (p 141).

But Noelle-Neumann fails to make the distinction between majority opinion and effective opinion (Hennessy, 1975), i.e., opinion that has sufficient power and resources behind it to be translated into policy. That is, the opinion held by the majority of the people is not always the most powerful or one that eventually is dominant. It could very well be that the media are reflecting effective opinion and the elite power coalitions that have sufficient resources to make their opinion become dominant and effective, rather than shaping opinion. In this case, the media would be neither shaping opinion nor reflecting majority opinion; they would be reflecting effective opinion.

Paletz and Entman (1981) take the position that elites in society crystallize and define issues and substantially influence public opinion. When elites agree on an issue, the media portray this consensus. When elites

disagree, Paletz and Entman argue, the media reflect this conflict and serve to redistribute power among various elite factions. But most of the time, the authors argue, the media are "unwitting handmaidens" of the powerful and not "agents" in their own right. Tichenor, Donohue and Olien (1980) have frequently demonstrated that the media do not act as independent agents at all, but instead, are an integral subsystem in the larger social system in which they operate.

On the other hand, there is a substantial body of literature which argues that the media can be agents of social control (e.g., Paletz, Reichert and McIntyre, 1971; Tuchman, 1978; Wright, 1960; Lazarsfeld & Merton, 1948; Gans, 1979; Rosengren, Arvidsson and Stureson, 1978). For example, Paletz has demonstrated that the media tend to reinforce local political authority. Gaye Tuchman has argued that the media, as conglomerates and businesses themselves, have a vested interest in maintaining the status quo. Charles Wright has argued that the mass media strengthen social control over individuals by bringing deviant behavior into public view. News, itself, warns against disorder, carries messages of "official controllers" (Gans, 1979) and is largely concerned with concrete cases of deviance from generally shared norms and values (Rosengren, Arvidsson and Sturesson, 1978). Thus, it is not "unequivocal" that the media are agents of social change; arguments and evidence exist for the three positions (agents of change, agents of control, not independent agents at all).

## Selective Perception

Much of the basis on which Noelle-Neumann's work stands is her contention that laboratory experiments on the effects of the mass media have been inadequate. She supports her contention by her review of the findings on selective behavior by audience members. She reports that the "selective perception theory" was given a sharp jolt by the work of Sears and Freedman

(1967, 1963). She then presents data that gives support for selective perception: newspaper subscribers of the Swiss Tages-Anzeiger who defend U.S. policy in Vietnam are more likely to think that the Tages-Anzeiger defends U.S. policy in Vietnam, while newspaper readers who disapprove of U.S. policy in Vietnam are more likely to see the Tages-Anzeiger as condemning U.S. policy in Vietnam (Noelle-Neumann, 1973, pp 71-73). She also demonstrates the existence of selection perception on four other issues. In referring to these data in a later article, Noelle-Neumann (1982) writes that refutation of selective perception was born from laboratory experiments, but in field research selective perception was "incontestably confirmed" by her (1973) data.

In reviewing the work of Sears and Freedman (1967), it is apparent that Noelle-Neumann has mixed up some terms. Sears and Freedman conducted a critical review of the work on selective exposure, not selective perception. Noelle-Neumann's evidence on selective perception basically replicates findings reported by Hyman and Sheatsley in 1947.

She does offer some data on selective exposure, that supporters of political candidates are more interested in reading newspaper stories about the candidate they favor (1973,pp 76-77), but it represents only one more study supporting the concept of selective exposure. While Sears and Freedman reviewed five studies that found that individuals had preferences for supportive information (thus supporting the notion of selective exposure), they also found that five studies showed that individuals did not seek supportive information, and that eight studies showed that individuals showed no preference for either supportive or non-supportive information.

## IV. Resignation of the Minority Faction

According to Noelle-Neumann, fear of isolation will induce holders of the losing opinion to be silent, thereby making the majority opinion appear

even stronger. Eventually, she argues, the losing faction must resign. But does the minority faction tend to be silent in the face of public opinion? Noelle-Neumann uses the following scenario to test her hypothesis:

> Let us assume that you were on a train and had a five-hour journey before you, and in your compartment there is a man who says (an opinion contrary to that of the respondent). Would you contradict him to tell him why you are against this, or wouldn't you do that?

From this technique, she has generated, for example, the data in Tables 5 and 6. She interprets her findings as follows: The view that "spanking a child is wrong" has been gaining ground since the 1960's (although no evidence of this trend is offered). Supporters of the two stands are about equally strong numerically (Table 5). Yet people in the minority are more willing to speak out (Table 6). This confirms that this viewpoint is gaining ground.

But these data do not support this claim, but instead, contradict her contention that "public opinion compels silence." Public opinion, to her, is dominant opinion, and it should silence those who do not share that opinion. In this example cited, however, holders of the minority opinion are more likely to speak out than are holders of the majority opinion (Table 6), but this does not prove, by itself, that the minority opinion is gaining ground.

At this point it is useful to examine three replications of Noelle-Neumann's work which are relevant to this section (Glynn & McLeod, 1982a; Glynn & McLeod, 1982b; Taylor, 1982).

In the first study, Glynn and McLeod used election data to test the spiral of silence thesis, which as previously stated, is not entirely appropriate for the study of public opinion variables. Secondly, their operationalization of "fear of isolation" was, the authors admit, perhaps not entirely valid. Rather than measuring respondents' reluctance to discuss an issue with a supporter of a different opinion, Glynn and McLeod measured whether respondents were willing to discuss the issue with family and

friends. Since these people are members of the respondent's primary group and, as a consequence, likely to share the same opinion, this is not a good measure of an individual's proclivity towards expressing an opinion in the face of a hostile majority. With this caveat in mind, Glynn and McLeod found that respondents who saw their candidate as losing were actually somewhat more likely to engage in interpersonal discussion than were respondents who saw their candidate as winning. The respondents backing a losing candidate were not silent, at least in the context of their primary group ties.

In a second replication, Glynn and McLeod (1982b) used a more appropriate operationalization of "fear of isolation" in asking supporters of Carter (or Reagan) how likely they would be to enter a discussion of the presidential campaign with Reagan (or Carter) supporters. Glynn and McLeod found "little support" that individuals would be silent in the face of the hostile majority. The findings were not statistically significant.

Taylor (1982) found mixed support for the spiral of silence thesis. First of all, he used a different operationalization of a key variable which makes his results less strong. Whereas Noelle-Neumann had based her thesis on conformity and indicated that those in the majority would be more willing to speak out on the issue than would those in the minority, Taylor asked respondents whether or not they would be willing to donate money to the group they favored. Giving money is one form of expression, but since it can be done in private, it is not subject to public scrutiny and consequently, it is not the operationalization of expression that Noelle-Neumann has in mind in her studies. With this difference in mind, he found that those in the majority were very willing to express themselves via financial support, thereby lending support to the spiral of silence. Yet, the spiral of silence was not consistently supported for those in the minority; findings were issue-specific. That is, while those holding the minority position on

nuclear power were less wi ing to donate money to a group representing their position (which is consistent with the spiral of silence), those holding the minority opinion on air pollution were likely to give financial support even though they perceived that they held the minority opinion. This finding prompted Taylor to argue that the mechanism in the spiral of silence may not be fear of isolation but instead, the expected benefits of political expression.

Thus, replications of the spiral of silence have failed to find strong support for the key hypothesis in the spiral of silence thesis. Individuals apparently do not uniformly feel compelled to silence if they hold the minority opinion. If they are not compelled to silence, than the one opinion will not appear to be stronger than it actually is and there will be no spiral.

## Need for Further Research

Noelle-Neumann has developed an integrated model of opinion formation and change that rests on the notion that individuals holding minority opinion will be compelled to conform to the opinion held by the majority or to remain silent. Yet replications of her work have met with mixed success, and one study has questioned Noelle-Neumann's contention that fear of isolation is the mechanism at work in the spiral of silence.

Does an individual feel "compelled" to conform because of fear of negative sanction, or instead, to reap a positive benefit? Does an individual who holds an opinion which statistically is in the minority nationwide, but who has primary group support, feel compelled to conform at all? If individuals in the minority faction conform publicly but retain their private inner convictions, must the minority faction "resign in defeat" as the spiral of silence thesis would predict? Can the inference be made that because some individuals fear isolation, most individuals fear being in the

minority, where they are not alone but are, instead, often reinforced by primary group ties?

Further research should address these questions and determine the threshhold of support from primary group ties that is needed to enable an individual to hold a minority opinion in a hostile environment.

Next, research should focus on conditions in which an individual is more likely to use projection or be susceptible to the spiral of silence when estimating majority opinion. Using the projection mechanism, the direction of causality is the opposite of Noelle-Neumann's. In her model, perceptions of the climate of opinion impinge to form or alter an individual's opinion. In the projection model, an individual uses his opinion to form his perceptions of the climate of opinion. This difference in perspectives leads to greatly different implications in the analysis of a given data set.

If the order of causality is as Noelle-Neumann claims, it is still not clear whether fear of isolation (as she argues) or the bandwagon effect is at work. In both cases, expectations of the outcome of an issue lead to changes in opinion-holding, but the two mechanisms are subtly different.

Further research should concentrate on attempting to identify the conditions under which each mechanism is at work. For example, individuals' familiarity with the issue is likely to be a relevant factor. That is, in the absence of knowledge about an issue or which societal groups take what stand on the issue, an individual might simply project has opinion onto others. On the other hand, if the individual is knowledgeable about the issue and knows viewpoints of various groups, then the spiral of silence or bandwagon mechanism might operate.

In other words, the visibility of the issue may be important. For example, if an issue is new or has not generated much conflict, then it probably has not generated much media attention and people may not be very aware of or knowledgeable about it. Thus, they may project their opinion

onto others and perhaps not feel uncomfortable when speaking about it in public. The key here is the structural variable conflict, as conflict generates issue visibility and reduces knowledge gaps in society (Tichenor, Donohue and Olien, 1980). Characteristics of issues which might be manipulated in future studies include: (1) specificity -- how abstractly or concretely an issue is defined; (2) social significance -- the impact of the issue, which is a function of the number of persons potentially affected by the issue; (3) categorical precedence -- whether the issue is routine (with precedent) or is extraordinary. These characteristics may potentially impact on the spiral of silence or bandwagon processes because they partially determine the extent to which an issue expands from immediate, highly-involved publics to "mass", or less-involved publics (Cobb & Elder, 1972).

This, in turn, raises the issue that certain combinations of individual traits and issues need to be addressed. First of all, it is conceivable that an individual's willingness to speak out against a majority might depend on how involving or salient that issue is to the individual -- the degree of ego-involvement an individual has in an issue. Consider two individuals who hold a minority opinion, e.g., favoring a constitutional amendment banning abortions (this is just an example and may or may not be the actual minority opinion in the nation). One is a fifty-year-old male bachelor and another is a twenty-year-old pregnant, married woman. Even though both share the minority opinion, one might be more likely to enter a discussion about the issue (and be a hardcore), while one might be more likely to feel pressure to be silent. Yet on a different issue, e.g., whether high school students should go "back to basics," perhaps their willingness to enter a discussion would be very different. Perhaps the degree to which a person remains silent or is a hardcore is partly a function of personality traits but is also a function of his involvement in the issue, which is likely to be related to

the amount and type of information an individual has on an issue. Related to this is evidence that certain demographic segments of individuals are inherently more likely to "speak out" than others: men, younger people and members of the middle and upper classes (Noelle-Neumann, 1974).

The initial distribution on an issue, whether it is nearly equal or heavily skewed, might also affect the degree to which the spiral of silence is operable. For example, in the case in which the distribution is initially even, individuals on both sides would sense that they had a great deal of support and might not fear isolation. In other situations where the distribution is initially skewed, the spiral of silence might be more likely to be at work, since holders of the minority opinion would quickly realize that they faced a formidable majority. In studies designed to test these ideas, data on public opinion situations, which Noelle-Neumann views as situations involving public behavior, not voting situations, which involve a single private action, should be used.

As stated earlier, individual-level data analysis should be employed to test Noelle-Neumann's contention that individuals who sense changes in their opinion are those who also change their opinions or vote intentions. While this refinement will help, this correlational data still will not clarify the direction of causality involved.

Finally, more attention should be given to respondents' perceptions of whether they hold majority or minority opinion. While a respondent may be statistically in the minority according to a national public opinion poll, he may be holding majority opinion in his interpersonal contexts and thus not reluctant to speak out. It is the perceptions of the climate of opinion, not the actual climate, which are important.

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Table 1

| number of critical errors | critical group n=50 | control group n=37 |
|---|---|---|
| 0 | 13 | 35 |
| 1 | 4 | 1 |
| 2 | 5 | 1 |
| 3 | 6 | |
| 4 | 3 | |
| 5 | 4 | |
| 6 | 1 | |
| 7 | 2 | |
| 8 | 5 | |
| 9 | 3 | |
| 10 | 3 | |
| 11 | 1 | |
| 12 | 0 | |
| total | 50 | 37 |

Source: Asch, 1965, p 129.

Table 2

Do you think most people in the Federal Republic are for, or against, recognizing the German Democratic Republic?

| | supporters of GDR recognition n=847 | opponents of GDR recognition n=884 |
|---|---|---|
| most are for | 49% | 8% |
| most are against | 19 | 57 |
| about 50-50 | 22 | 19 |
| impossible to say | 10 | 16 |
| | 100% | 100% |

Source: Noelle-Neumann, 1974, p 49

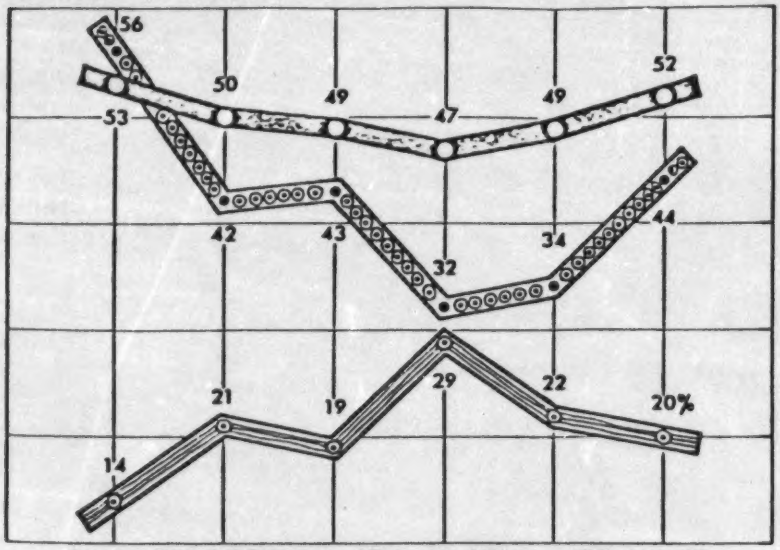
Table 3

VOTING INTENTION: Christian Democrats

POLITICAL CLIMATE:

Figures based on negative replies - "don't think most people like Christian Democrats"

Figures based on positive replies - "think most people like Christian Democrats"




SOURCE: Dec. 1974, IFD-Survey 3010; July 1975, IFD-Survey 3017; Sept. 1975, IFD-Survey 3019; Dec. 1975, IFD-Survey 3022, Jan. 1976, IFD-Survey 3023; March 1976, IFD-Survey 3025.

Source: Noelle-Neumann, 1977, p 147

Table 4

| | supporters of majority opinion who think they represent | | supporters of minority opinion who think they represent | |
|---|---|---|---|---|
| | the majority n=748 | the minority n=271 | the minority n=47 | the majority n=198 |
| if, during a 5-hour train ride, someone in the compartment had a different opinion on the subject of alcohol limit I would | | | | |
| contradict him | 79% | 75% | 53% | 78% |
| not contradict him | 14 | 20 | 45 | 19 |
| no statement | 7 | 5 | 2 | 3 |
| | 100% | 100% | 100% | 100% |

Source: Noelle-Neumann, 1973, p 106

Table 5

| | Total housewives |
|---|---|
| agree with... | |
| spanking is part of a child's upbringing | 47% |
| spanking is fundamentally wrong | 40 |
| undecided | 13 |
| | 100% |

Source:Noelle-Neumann, 1973, p102

Table 6

| | believe spanking is wrong | believe spanking is alright |
|---|---|---|
| would enter into discussion with supporter of opposite view | 55% | 45% |
| would not enter such a discussion | 40 | 49 |
| no statement | 5 | 6 |
| | 100% | 100% |

Source: Noelle-Neumann, 1973, p102